



PATENT
TH-0681N (US)
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10-10-01

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Yukiko Iwata
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Date: September 24, 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of)
David M. Singleton, Louis Kravetz,)
Brendan Murray)
Serial No. 09/655,964)
Filed September 6, 2000)
HIGHLY BRANCHED PRIMARY ALCOHOL)
COMPOSITION, AND BIODEGRADABLE)
DETERGENTS MADE THEREFROM)

Group Art Unit: 1751
Examiner: N. Ogden
September 24, 2001

ASSISTANT COMMISSIONER FOR PATENTS
Washington, DC 20231
Sir:

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RESPONSE

In response to the Office action of April 23, 2001 the following amendments and remarks are submitted.

REMARKS

The Examiner is respectfully requested to reconsider the application in view of the following remarks.

The Sasol article is resubmitted to correct the document date. For the discussion below, for discussion purposes only, it is assumed that the Sasol article was available on November 25, 1996. However, the availability of the article is based on a facsimile cover sheet stating that Sasol at South Africa is providing the article to a certain person at some part of the world on November 25, 1996 that became available to applicants through a foreign patent office. Accordingly, applicants are unable to verify the available

date in this country or a publication date at this time and reserve the date that this article may have been available under 35 USC 103.

Claims 1-12, 70-83 are rejected under 35 USC 103(a) as being obvious over Sasol Detergent Alcohols,” (Preliminary Sasol R&D Technical bulletin, November 1996).

5 The rejection is respectfully traversed for the following reasons.

The invention is a biodegradable sulfate composition and a branched primary alcohol composition. The biodegradable sulfate composition comprises sulfates of an alkyl branched primary alcohol composition having from 8 to 36 carbon atoms, wherein said alcohol composition has an average number of branches per molecule of at least 0.7,
10 and said branching comprises methyl and ethyl branches. The branched primary alcohol composition has 8 to 36 carbon atoms, an average number of branched per molecule chain of at least 0.7, less than 0.5 atom % of quaternary carbon atoms, and less than 5% of the alcohol molecules in the composition are linear alcohols.

The Sasol article is directed to olefins and their possible derivatives
15 produced from Fischer-Tropsch reactors. (see page 2, third paragraph) “Olefins produced are linear alpha olefins, mono-methyl branched alpha olefins, di- and trimethyl branched alpha olefins and a small amount of internal olefins which are branched and linear.” The olefins described as potential products from the F-T process appears to be mainly linear and mono-methyl alpha olefins.

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When using an iron based catalyst, the products of the F-T process are *mainly linear and mono-methyl alpha olefins*. Other olefins formed in lower concentration relative to the linear alpha and mono-methyl branched alpha olefins, are internal olefins. Small amounts of mono-ethyl branched material
25 may also be present. (emphasis added) Page 4, lines 8-12.

At page 5, a possible composition for the C₁₂ olefin is described in Diagram 3.1.1 having linear alpha olefin content of 55% and mono-methyl alpha olefin content of 45%. Such a product as described by the Sasol article is different than applicants claimed product. By
30 contrast, the alcohol compositions claimed by applicants has among other properties an *average number of branches per molecule of at least 0.7* and for claim 70 less than 5% of

the alcohol molecules in the composition are linear alcohols that are *produced by a different method* than F-T process.

Applicants submit that the Examiner has not met the burden that the Supreme Court and the Federal Circuit places on the U.S. Patent and Trademark Office to establish *prima facie* obviousness. The ultimate determination of whether an invention is or is not obvious is a legal conclusion based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 148 USPQ 459, 467 (1966); See *In Re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999).

It is submitted that the composition claimed by applicants are significantly different than that taught by the Sasol article. Applicants claimed compositions are not a simple position isomer or homolog to those taught by the Sasol article and that they are significantly different complex composition produced by a different method. The Sasol article does not provide how to produce the composition produced by applicants method. Applicants claimed composition is a unique composition that is in part characterized by the amount of branching in the primary alcohol composition produced by the combination of skeletal isomerization then hydroformylation. Therefore, Applicants submit that the Examiner's obviousness rejection is an improper reconstruction of the invention based on impermissible hindsight gained from the knowledge gleaned from the Applicants' disclosure. See, *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Accordingly, Applicants respectfully request withdrawal of the rejection.


The Examiner is respectfully requested to reexamine the claims and pass the case to issue. If it would be considered helpful in resolving any issues in the case, the Examiner is encouraged to contact the undersigned at the number below.

FEE

The Commissioner is hereby authorized to charge to Deposit Account No. 19-1800, fee if any associated with the filing of this amended PTO-1449 form.

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